

|                               |                        |                     |  |
|-------------------------------|------------------------|---------------------|--|
| <b>Notice of Allowability</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                               | 10/840,209             | LEE ET AL.          |  |
|                               | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                               | Tara L. Mayo           | 3671                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 15 September 2006.
2. ☒ The allowed claim(s) is/are 1-3,5,6,10,11,14,32,35-39,42-46 and 51-85.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application  |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>20061215</u> . |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date <u>20060915</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                   | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                         |
|  | 9. <input type="checkbox"/> Other _____.   |

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Dr. Kawai Lau on 15 December 2006.

The application has been amended as follows:

In the Abstract on lines 6 through 8, "The system may be used...oil-and-gas exploration." has been deleted.

Claims 3, 6, 10, 11, 14, 39, 52 and 54 have been rejoined.

Claim 6 has been amended to read -- The method of claim 1, wherein the aerogel blanket of said apparatus comprises a material selected from the group consisting of silica aerogels, cellulose aerogels, precompressed aerogel and combinations thereof.--.

Claims 15 through 31, 40, 41 and 47 through 50 have been canceled.

Claim 35 has been amended to read -- The method of claim 1, wherein the aerogel blanket of said apparatus comprises aerogel particles.--.

Claim 44 has been amended to read -- The method of claim 1, wherein said aerogel blanket of said apparatus has a thermal conductivity less than or equal to 50 mW/m-K.--.

Claim 55 has been amended to read -- The method of claim 32, wherein the aerogel blanket of said apparatus comprises aerogel particles.--.

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In claim 56 on line 8, "material in a blanket form" has been deleted and --blanket-- inserted therefor.

In claim 57 on line 2, --blanket-- has been inserted immediately following "aerogel" and prior to "is."

In claim 59 on line 2, "material" has been deleted and --blanket-- inserted therefor..

Claim 60 has been amended to read -- The pipe-in-pipe apparatus of claim 56, wherein said aerogel blanket comprises aerogel particles.--.

In claim 63 on line 2, immediately following "aerogel" and prior to "comprises" the word --blanket-- has been inserted.

In claim 63 on line 3, "combination" has been changed to --combinations--.

In claim 67 on line 3, "or both" has been deleted and --or between the spacer and both the flow line and the carrier pipe-- inserted therefor.

Claim 80 has been amended to read -- The pipe-in-pipe apparatus of claim 56, wherein the apparatus comprises more than one aerogel blanket.--.

Claim 83 has been amended to read -- The pipe-in-pipe apparatus of claim 56, further comprising temperature sensors positioned along said flowline or said carrier pipe to measure temperature at a plurality of locations in the apparatus.--.

In claim 84 on line 2, "of aerogel" has been changed to --of the aerogel blanket--.

### ***Drawings***

2. The drawings were received on 15 September 2006. These drawings are acceptable.

***Reasons for Allowance***

3. The following is an examiner's statement of reasons for allowance:

Aerogel blankets are recent developments in the art of insulation and exhibit improved flexibility, drape and heat resistance as compared to prior forms of aerogels. The use of aerogel blankets in combination with pipe-in-pipe flow lines is novel.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is 571-272-6992. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 571-272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

tlm

15 December 2006

  
**TARA L MAYO**  
**PATENT EXAMINER**

approved  
JLL 11/25/06

Replacement Sheet

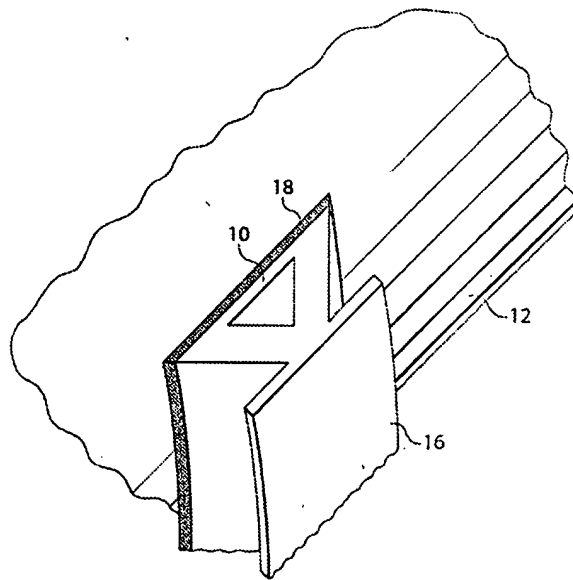


Fig. 3



approved  
1/28/06

Replacement Sheet

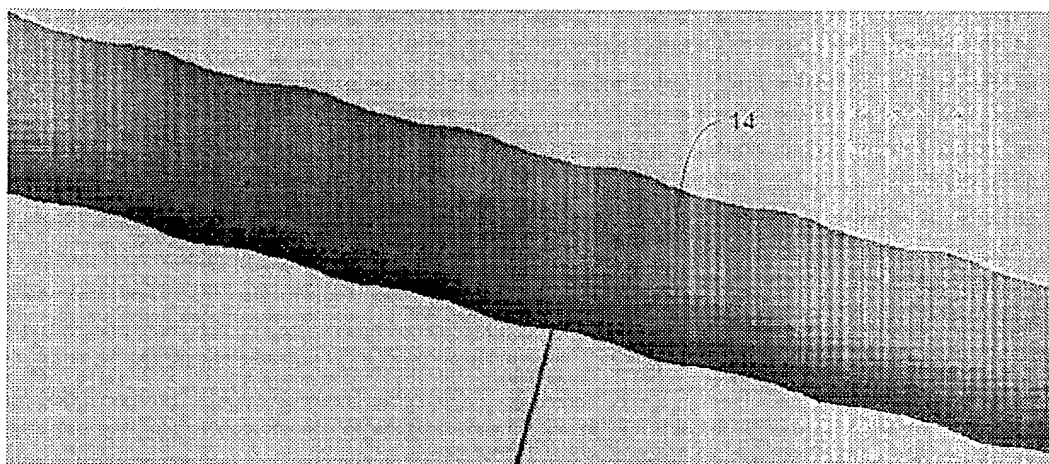
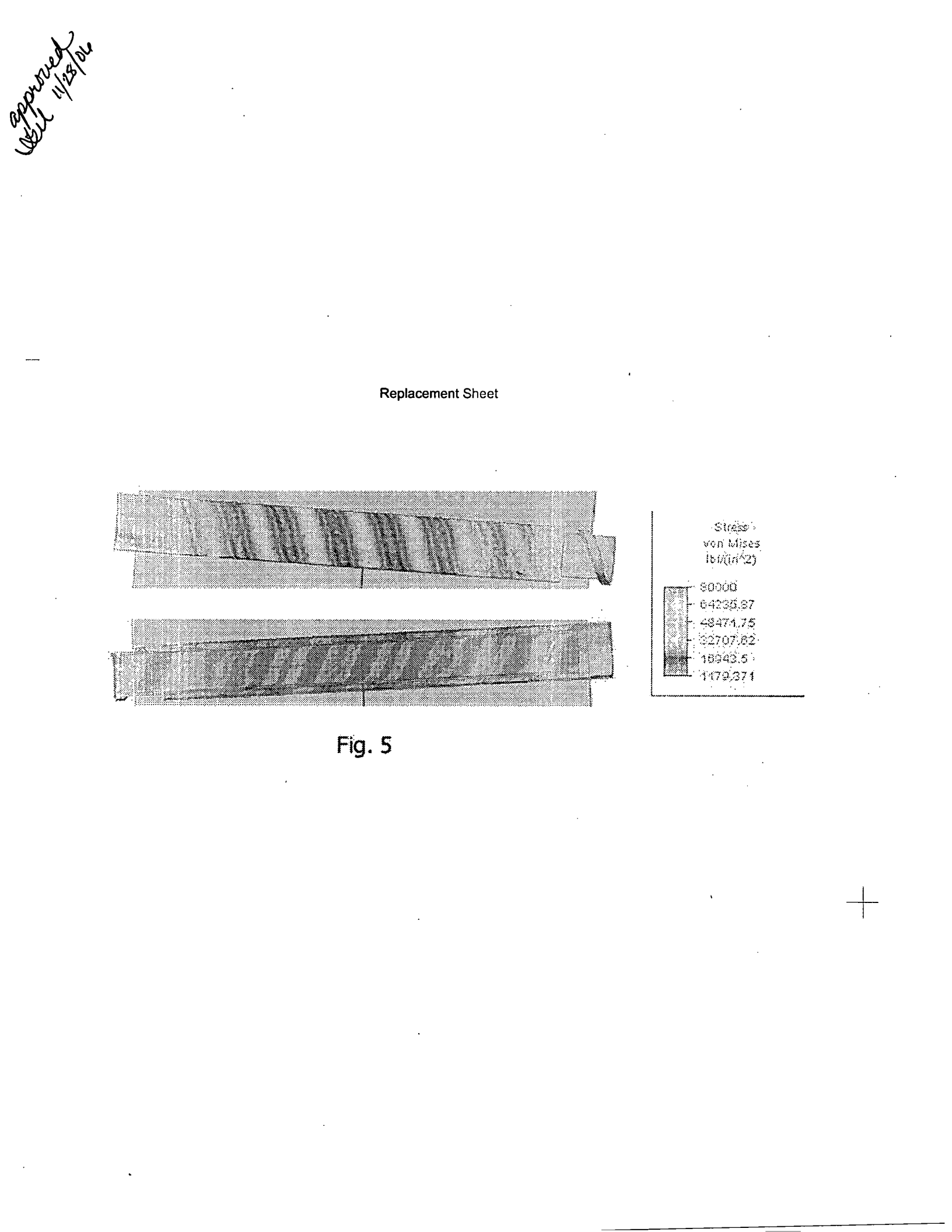


Fig. 4







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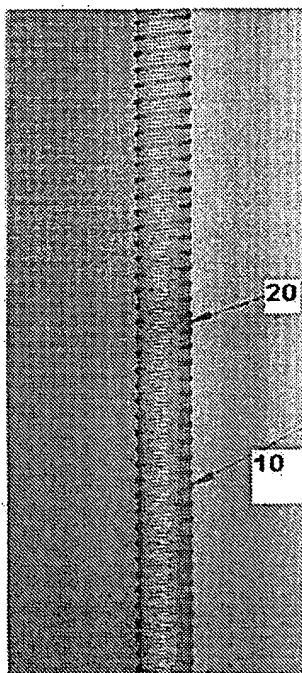


Fig. 6

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New Sheet

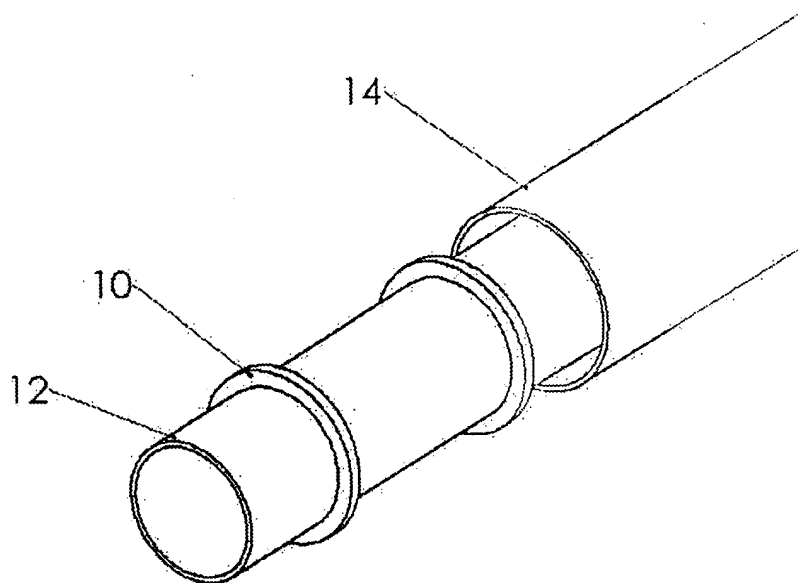


Fig. 8

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